

*D-Revised*

# Analysis of In-House Expenditures for Railroad Bridge Inspection

Employee Name	DOT01702010 Hours Inspection of Various RR Bridges	DOT03000097 Hours Inspection of New Haven Line RR Bridges	Total hours of State Oversight	Hours Associated with Inspection Report Review and Actions (will be required to continue if work is brought in- House)	Hours Associated with Consultant Oversight (no longer required if work is brought in- House)
Lev Labor	126.50	511.00	636.50	120.00	516.50
Yure	60.00	362.00	422.00	122.25	299.75
Jay Mathier	30.00	-	30.00	-	30.00
Hareesh	-	1,241.75	1,241.75	360.00	881.75
Jlenele	-	1,787.50	1,787.50	500.00	1,287.50
Jay Young	-	2.00	2.00	-	2.00
<b>Total:</b>	<b>215.50</b>	<b>3,904.25</b>	<b>4,119.75</b>	<b>1,102.25</b>	<b>3,017.50</b>
				<b>26.76%</b>	<b>73.24%</b>

In-House Expenditures include both Consultant Inspection Oversight as well as Inspection Report Review and Coordination of the methods to address findings.

The Inspection Report Review and Coordination portion will continue on, but the Consultant Inspection Oversight will not be required. This portion has been calculated at 73.24% and since it will no longer be required, those hours can be used to reduce the additional State Employees required to perform Inspection.

The remaining 26.76% of the original \$316,388 In-House expenditures, (\$84,665.43) will be carried forward in the analysis as ongoing oversight.

Account Code	Railroad Bridges DOT03000097PE	DOT01702010PE	Mast Arms & Sign Supports DOT01702614PE	DOT01702730PE
50110	173,912.80	14,965.60	743.83	59,066.99
50160	4,237.68	364.67	18.13	1,439.26
50170	4,136.18	-	-	48.21
50410	144.40	12.78	0.52	62.04
50420	23,822.16	1,695.67	117.61	10,619.40
50430	435.68	37.13	1.86	143.00
50441	10,847.19	748.60	46.56	3,664.89
50442	2,573.75	216.93	10.88	857.98
50460	3,087.08	285.64	13.21	1,048.48
50471	69,093.39	5,790.77	293.47	23,042.48
<b>Total</b>	<b>292,290.31</b>	<b>24,097.79</b>	<b>1,246.06</b>	<b>99,992.73</b>
	<b>316,388.10</b>		<b>101,238.79</b>	

Indirect Costs (26.6%) Applied to Account Code 50110 (Direct Salaries):

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50,241.65
13,444.67

# Rail Bridge Inspection - Consultant Hours Converted to State Employee Classification

State Employee Classification	Total Hours	Less Hours available from current employees no longer needed to provide consultant oversight (26.76%)	Number of employees based on 1612.83 productive hours per year	Estimated Employees Needed to be Hired
Diver	32.00		0.02	
Drafter/Highway	240.00		0.15	
Trans Engrn Trainee	1,294.00	(1,309.17)	7.26	8
TransportationEngineer2(E)	11,724.00	(1,220.00)	4.84	5
TransportEngnr3(E)	9,023.00	(488.14)	1.76	2
TranspSupvngEngnr(E)	3,320.50			
<b>Consultant Total</b>	<b>25,633.50</b>	<b>(3,017.30)</b>	<b>14.02</b>	<b>15</b>
State Forces Oversight (\$316,388) in hrs		** See Note Below		
TransportationEngineer2(E)	1,787.50	73.24%	1,309.17	
TranspEngnr3(E)	1,665.75	73.24%	1,220.00	
TranspSupvngEngnr(E)	636.50	73.24%	466.17	
TranspPrncpalEngnr(E)	30.00	73.24%	21.97	
<b>State Forces Total</b>	<b>4,119.75</b>		<b>3,017.30</b>	

\*\* State Forces Oversight includes both Consultant Inspection Oversight as well as Inspection Report Review and Coordination of the methods to address findings. The Inspection report Review and Coordination portion will continue on, but the Consultant Inspection Oversight will not be required. This portion has been calculated at 73.24% and since it will no longer be required, those hours can be used to reduce the additional State Employees required to perform inspection. The remaining 26.76% of the original \$316,388 In-House expenditures, (\$84,665.43) will be carried forward in the analysis as ongoing oversight.

## Office of Rail Analysis of Actual Employees Needed to be Hired

TransportationEngineer2(E)	8
TranspEngnr3(E)	5
TranspSupvngEngnr(E)	2
<b>Total:</b>	<b>15</b>

## Annualization of Salaries for New Employees

Title	Ave Hrly Rate	Bi-Weekly Hours	Ave Bi-Weekly Salary (80 hours)	Average Annual Salary (biweekly * 26.1)	# of Employees	Annual Payroll
TransportationEngineer2(E)	35.55	80	2,844.00	74,228.40	8	\$ 593,827.20
TranspEngnr3(E)	44.99	80	3,599.20	93,939.12	5	\$ 469,695.60
TranspSupvngEngnr(E)	51.40	80	4,112.00	107,323.20	2	\$ 214,646.40
<b>Total Payroll:</b>						<b>\$ 1,278,169.20</b>

Revised

**Cost Benefit Analysis Summary Sheet**  
**Railroad Bridge Inspections**  
**(Based on Analysis of FY2010 Consultant Expenditures)**

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Expenditure Description	Actual Consultant Costs	Est. State Forces Costs	Comments
<b>Payroll:</b>	\$ 942,549.43	\$ 1,278,169.20	15 Employees
<b>Consultant Burden, Fringe &amp; Overhead:</b>	\$ 1,185,631.67		
<b>State Fringes &amp; Additives:</b>			
Unemployment Compensation	0.29%	3,706.69	
Retirement	39.85%	509,350.43	
Est. Social Security	6.20%	79,246.49	
Medicare	1.45%	18,533.45	
Est. Life Insurance	0.14%	1,789.44	
Est. Medical Insurance	16.94%	216,521.86	
Workers Compensation	2.20%	28,119.72	
Longevity Additive	2.44%	31,187.33	
Fringes on Longevity Additive	60.6% of Longevity	18,899.52	
<b>Total State Fringes &amp; Additives:</b>		\$ 907,354.93	
<b>Consultant Fixed Fee for Profit:</b>	\$ 209,448.05	\$ -	
<b>Direct Costs:</b>	\$ 245,444.30	\$ 232,692.85	Assumed same as consultant with the exception of RR Insurance
<b>In-House Payroll/Fringes Charged Directly:</b>	\$ 316,388.00	\$ 84,665.43	State Forces oversight carried forward at 26.76% *
<b>Additional Costs for Training, Equipment and Supplies required if work were performed by State Forces</b>		\$ 71,173.33	
<b>Total Cost Analysis A - (without Indirect Costs):</b>	\$ 2,899,461.45	\$ 2,574,055.74	
<b>Variance from Estimated State Forces Expenditures (without application of an Indirect Cost Rate):</b>	12.6%		
<b>DOT Estimated Indirect Costs on Inspection Direct Labor (26.60%):</b>	\$ -	\$ 339,993.01	State Average Indirect Cost Rate supplied by OPM
<b>DOT Estimated Indirect Costs on In-House Direct Labor (26.60%):</b>	\$ 50,241.65	\$ 13,444.67	
<b>Total Cost Analysis B - (with Indirect Costs):</b>	\$ 2,949,703.10	\$ 2,927,493.42	
<b>Variance from Estimated State Forces Expenditures (including application of an Indirect Cost Rate):</b>	0.8%		

\* In-House Payroll/Fringe Expenditures include both Consultant Inspection Oversight as well as Inspection Report Review and Coordination of the methods to address findings. The Inspection Report Review and Coordination portion will continue on, but the Consultant Inspection Oversight will not be required. This portion has been calculated at 73.24% and since it will no longer be required, those hours were used to reduce the additional State Employees required to perform Inspection. The remaining 26.76% of the original \$316,388 In-House expenditures, (\$84,665.43) will be carried forward in the analysis as ongoing oversight.